# Page Avenue (Route 364) \_\_\_\_ Bridges \_\_\_\_

There are several bridges and overpasses that are part of the Page Avenue project, but two stand out among the rest. One bridge crosses the tip of Creve Coeur Lake and one crosses the Missouri River.

# **Missouri River Bridge**

The bridge over the Missouri River will connect St. Louis and St. Charles counties and is actually two separate bridges. The structure itself is called a "tied arch" bridge because each arch is tied together with many steel cables. Each tied arch bridge was erected on bridge piers near the banks of the Missouri River. Four barges then floated each structure to their permanent position over the Missouri River. Each bridge will carry five lanes of traffic across the Missouri River, and the westbound bridge has a separate bike lane. Cost to construct the land piers: \$8.6 million. Cost to construct the bridge piers in the Missouri River: \$28.1 million. Cost to construct the remainder of the bridge: \$79.4 million.

### By the Numbers

- Each tied arch structure is 616 feet long, 125 feet high and 90 feet wide
- 90,000 cubic yards of concrete were used for the driving surface and bridge piers
- The structures contain 16 ½ million pounds of reinforcing steel
- 78,000 feet of piling (beams drilled into the ground to support the bridge)
- 3,000 feet of drilled shafts (the actual holes drilled into the ground)
- The steel girders and the two arches are comprised of 33 million pounds of structural steel
- The tied arches are held together by 444,000 bolts
- If the cables of the two tied arches were all connected, they would stretch 3 ½ miles
- It is 3,244 feet from the abutment on the St. Louis side to the abutment on the St. Charles side

## **Creve Coeur Lake Bridge**

The Creve Coeur Lake bridge crosses the southern tip of Creve Coeur Lake. This bridge is actually a "one of a kind" bridge. The Creve Coeur Lake bridge is a cast in place concrete segmental box girder bridge. This means that the concrete was poured in place instead of being made at a plant and then shipped to the site. The bridge was then constructed in several pieces, and the girders are actually hollow underneath the driving surface. It is the first one of this type built in Missouri. The bridge was built this way to avoid disturbing the area underneath the bridge structure. The bridge will carry 10 lanes of traffic across the southern tip of Creve Coeur Lake. Cost: \$73.5 million.

### **By the Numbers**

- The bridge is 2,675 feet long and 172 feet wide
- The bridge sits nearly 110 feet above the ground
- More than 107,000 cubic yards of concrete of concrete were used to construct the bridge
- The bridge contains more than 24 million pounds of reinforcing steel
- More than 134,000 feet of piling

